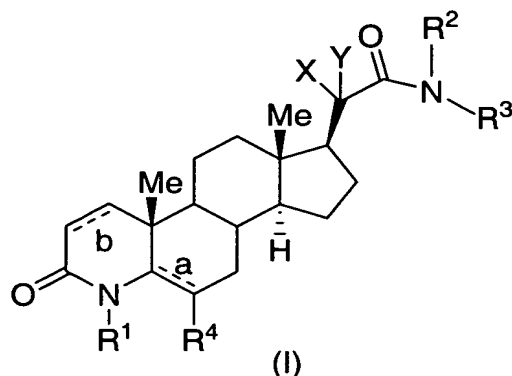


AMENDMENTS TO THE CLAIMS:

**Claim 1 (Original):** A compound of structural formula I:



a pharmaceutically acceptable salt or a stereoisomer thereof, wherein:

n is 0, 1, or 2;

a and b are each independently chosen from a double bond and a single bond;

X and Y are each independently chosen from hydrogen, halogen, hydroxy, C<sub>1-4</sub> alkoxy, hydroxymethyl, and C<sub>1-3</sub> alkyl, wherein said alkoxy and alkyl are each optionally substituted with one to seven fluorine atoms; or

X and Y, together with the carbon atom to which they are attached, can optionally form a C<sub>3-6</sub> cycloalkyl group;

R<sup>1</sup> is chosen from hydrogen, carbonyl(C<sub>1-3</sub> alkyl), hydroxy, C<sub>1-4</sub> alkoxy, halogen, hydroxymethyl, (C<sub>0-6</sub> alkyl)<sub>2</sub>amino, and C<sub>1-3</sub> alkyl, wherein said alkoxy and alkyl are each optionally substituted with one to seven fluorine atoms;

R<sup>4</sup> is chosen from halogen, C<sub>1-6</sub> alkyl, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> alkynyl, (CH<sub>2</sub>)<sub>n</sub>-phenyl, and (CH<sub>2</sub>)<sub>n</sub>-naphthyl; and

wherein R<sup>4</sup> is optionally substituted with one or more substituents each independently chosen from cyano, carboxy, halogen, hydroxy, oxo, C<sub>1-4</sub> alkoxy, and C<sub>1-4</sub> alkylthio; or

R<sup>4</sup>, together with the carbon atom to which it is attached, form a carbonyl or a cyclopropyl group and provided that a represents a single bond; or

R<sup>1</sup> and R<sup>4</sup>, together with the atoms to which they are attached, form a 5- or 6-membered ring system optionally containing an additional heteroatom chosen from O, S, and NC<sub>1-4</sub> alkyl;

R<sup>2</sup> is hydrogen or C<sub>1-4</sub> alkyl, wherein said C<sub>1-4</sub> alkyl is optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1-4</sub> alkoxy, and C<sub>1-4</sub> alkylamino;

R<sup>3</sup> is selected from

(CH<sub>2</sub>)<sub>n</sub>-aryl, wherein said aryl is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>, and  
(CH<sub>2</sub>)<sub>n</sub>-heteroaryl, wherein said heteroaryl is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>;  
C<sub>1-10</sub> alkyl, wherein said C<sub>1-10</sub> alkyl is optionally substituted with one or more substituents independently chosen from R<sup>6</sup>; or  
R<sup>2</sup> and R<sup>3</sup>, together with the nitrogen atom to which they are attached, form a 5- or 6-membered saturated ring fused with a 5- or 6-membered aromatic ring system having 0, 1, or 2 heteroatoms selected from N, O, and S; and  
wherein any methylene (CH<sub>2</sub>) carbon atom in (CH<sub>2</sub>)<sub>n</sub> is optionally substituted with one or more groups independently selected from halogen, hydroxy, and C<sub>1-4</sub> alkyl optionally substituted with one or more halogen moieties; or two substituents when on the same methylene (CH<sub>2</sub>) group are taken together with the carbon atom to which they are attached to form a cyclopropyl group;  
R<sup>5</sup> is chosen from: hydrogen, halogen, (carbonyl)<sub>0-1</sub>C<sub>1-10</sub> alkyl, (carbonyl)<sub>0-1</sub>C<sub>2-10</sub> alkenyl, (carbonyl)<sub>0-1</sub>C<sub>2-10</sub> alkynyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkyl(carbonyl)<sub>0-1</sub>, C<sub>3-8</sub> heterocycloalkyl C<sub>0-10</sub> alkyl(carbonyl)<sub>0-1</sub>, heterocycloalkyl, C<sub>1-4</sub>acylamino C<sub>0-10</sub> alkyl, C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkylaminocarbonyl, di-(C<sub>1-10</sub> alkyl)amino C<sub>0-10</sub> alkyl, arylC<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, (arylC<sub>0-10</sub> alkyl)<sub>2</sub>amino C<sub>0-10</sub> alkyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, (C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkyl)<sub>2</sub>amino C<sub>0-10</sub> alkyl, (C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkyl)<sub>2</sub>amino C<sub>0-10</sub> alkyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkyl aminocarbonylamino, (C<sub>1-10</sub> alkyl)<sub>2</sub>aminocarbonylamino, (aryl C<sub>1-10</sub> alkyl)<sub>1-2</sub>aminocarbonylamino, C<sub>0-10</sub> alkyl aminocarbonylamino, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkyl aminocarbonylamino, (C<sub>1-10</sub> alkyl)<sub>2</sub>aminocarbonyl C<sub>0-10</sub> alkyl, (aryl C<sub>1-10</sub> alkyl)<sub>1-2</sub>aminocarbonyl C<sub>0-10</sub> alkyl, C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, aryl C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, (C<sub>1-10</sub> alkyl)<sub>2</sub>aminocarbonyl, (aryl C<sub>1-10</sub> alkyl)<sub>1-2</sub>aminocarbonyl, C<sub>1-10</sub> alkoxy (carbonyl)<sub>0-1</sub>C<sub>0-10</sub> alkyl, C<sub>0-10</sub> alkyl carbonylamino(C<sub>0-10</sub> alkyl), C<sub>0-10</sub> alkoxy carbonylamino(C<sub>0-10</sub> alkyl), carboxy C<sub>0-10</sub> alkylamino, carboxy C<sub>0-10</sub> alkyl, carboxy C<sub>3-8</sub> cycloalkyl, C<sub>1-10</sub> alkoxy, C<sub>1-10</sub>alkyloxy C<sub>0-10</sub>alkyl, C<sub>1-10</sub> alkylcarbonyloxy, C<sub>0-10</sub>alkyl carbonylC<sub>0-10</sub>alkoxy, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkylcarbonyloxy, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkylcarbonyloxy, aryl C<sub>0-10</sub> alkylcarbonyloxy, C<sub>1-10</sub> alkylcarbonyloxy amino,

C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkylcarbonyloxy amino,  
C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkylcarbonyloxy amino, aryl C<sub>0-10</sub> alkylcarbonyloxy amino,  
(C<sub>1-10</sub> alkyl)<sub>2</sub>aminocarbonyloxy, (aryl C<sub>0-10</sub> alkyl)<sub>1-2</sub>aminocarbonyloxy,  
(C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkyl)<sub>1-2</sub>aminocarbonyloxy,  
(C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub>alkyl)<sub>1-2</sub>aminocarbonyloxy, hydroxy (carbonyl)<sub>0-1</sub>C<sub>0-10</sub>alkyl,  
hydroxycarbonylC<sub>0-10</sub>alkoxy, hydroxycarbonylC<sub>0-10</sub>alkyloxy, C<sub>1-10</sub> alkylthio,  
C<sub>1-10</sub> alkylsulfinyl, aryl C<sub>0-10</sub> alkylsulfinyl, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkylsulfinyl,  
C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkylsulfinyl, C<sub>1-10</sub> alkylsulfonyl, aryl C<sub>0-10</sub> alkylsulfonyl,  
C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkylsulfonyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkylsulfonyl,  
C<sub>1-10</sub> alkylsulfonylamino, aryl C<sub>1-10</sub> alkylsulfonylamino,  
C<sub>3-8</sub> heterocyclyl C<sub>1-10</sub> alkylsulfonylamino, C<sub>3-8</sub> cycloalkyl C<sub>1-10</sub> alkylsulfonylamino,  
cyano, nitro, perfluoroC<sub>1-6</sub>alkyl, and perfluoroC<sub>1-6</sub>alkoxy;

wherein R<sup>5</sup> is optionally substituted with one or more groups chosen from: OH, (C<sub>1-6</sub>)alkoxy, halogen, CO<sub>2</sub>H, CN, O(C=O)C<sub>1-6</sub> alkyl, NO<sub>2</sub>, trifluoromethoxy, trifluoroethoxy, -O<sub>b</sub>(C<sub>1-10</sub>)perfluoroalkyl, and NH<sub>2</sub>; and

R<sup>6</sup> is halogen, hydroxy, C<sub>1-4</sub> alkoxy, CONH<sub>2</sub>, and C<sub>1-4</sub> alkylamino, wherein R<sup>6</sup> is optionally substituted with one or more groups chosen from: OH, (C<sub>1-6</sub>)alkoxy, halogen, CO<sub>2</sub>H, CN, O(C=O)C<sub>1-6</sub> alkyl, NO<sub>2</sub>, trifluoromethoxy, trifluoroethoxy, -O<sub>b</sub>(C<sub>1-10</sub>)perfluoroalkyl, NH<sub>2</sub>, and -O<sub>b</sub>(C<sub>1-10</sub>)alkyl optionally substituted with one or more halogen moieties.

**Claim 2 (Original):** The compound of Claim 1, wherein R<sup>3</sup> is chosen from (CH<sub>2</sub>)<sub>n</sub>-aryl, wherein said aryl is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>, and (CH<sub>2</sub>)<sub>n</sub>-heteroaryl, wherein said heteroaryl is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>.

**Claim 3 (Original):** The compound of Claim 2, wherein in R<sup>3</sup>, said aryl is chosen from phenyl, naphthyl, tetrahydro-naphthyl, indanyl, and biphenyl, and wherein said R<sup>3</sup> is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>.

**Claim 4 (Original):** The compound of Claim 3, wherein said aryl is chosen from phenyl, and naphthyl and wherein said R<sup>3</sup> is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>.

**Claim 5 (Original):** The compound of Claim 2, wherein in R<sup>3</sup>, said heteroaryl is chosen from azabenzimidazole, acridinyl, carbazolyl, cinnolinyl, benzimidazolyl, benzofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzodihydrofuranyl, 1,3-benzodioxolyl, 2,3-

dihydro-1,4-benzodioxinyl, indolyl, quinolyl, quinoxaliny, isoquinolyl, furanyl, thienyl, imidazolyl, oxazolyl, thiazolyl, isoxazolyl, isothiazolyl, pyrazolyl, pyrrolyl, pyridyl, pyrimidyl, pyrazinyl, piridaziny, tetrahydroquinoliny, thiadiazolyl, oxadiazolyl, triazolyl, imidizopyridiny, tetrazolyl, and indanyl; wherein said R<sup>3</sup> is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>.

**Claim 6 (Original):** The compound of Claim 5, wherein said heteroaryl is chosen from azabenzimidazole, benzimidazolyl, benzofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzodihydrofuranyl, 1,3-benzodioxolyl, 2,3-dihydro-1,4-benzodioxinyl, indolyl, quinolyl, quinoxaliny, isoquinolyl, thienyl, imidazolyl, thiazolyl, isoxazolyl, isothiazolyl, pyrazolyl, pyrrolyl, pyridyl, pyrimidyl, pyrazinyl, piridaziny, tetrahydroquinoliny, thiadiazolyl, triazolyl, imidizopyridiny, and tetrazolyl; wherein said R<sup>3</sup> is optionally substituted with one or more substituents independently chosen from R<sup>5</sup>.

**Claim 7 (Original):** The compound of Claim 1, wherein R<sup>1</sup> is chosen from hydrogen, and C<sub>1-3</sub> alkyl optionally substituted with one to seven fluorine atoms.

**Claim 8 (Original):** The compound of Claim 7, wherein R<sup>1</sup> is chosen from hydrogen and methyl.

**Claim 9 (Original):** The compound of Claim 1, wherein R<sup>4</sup> is chosen halogen, C<sub>1-6</sub> alkyl, and (CH<sub>2</sub>)<sub>n</sub>-phenyl, wherein R<sup>4</sup> is optionally substituted with one or more substituents each independently chosen from cyano, carboxy, halogen, hydroxy, oxo, C<sub>1-4</sub> alkoxy, and C<sub>1-4</sub> alkylthio.

**Claim 10 (Original):** The compound of Claim 9, wherein R<sup>4</sup> is chosen from halogen and C<sub>1-6</sub> alkyl, optionally substituted with one or more substituents each independently chosen from cyano, carboxy, halogen, hydroxy, oxo, C<sub>1-4</sub> alkoxy, and C<sub>1-4</sub> alkylthio.

**Claim 11 (Original):** The compound of Claim 10, wherein R<sup>4</sup> is CH<sub>3</sub>.

**Claim 12 (Original):** The compound of Claim 1, wherein R<sup>4</sup>, together with the carbon atom to which it is attached, forms a carbonyl or a cyclopropyl group.

**Claim 13 (Original):** The compound of Claim 12, wherein R<sup>4</sup>, together with the carbon atom to which it is attached, forms a cyclopropyl group.

**Claim 14 (Original):** The compound of Claim 1, wherein R<sup>5</sup> is chosen from: hydrogen, halogen, (carbonyl)C<sub>0-10</sub> alkyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkyl(carbonyl)C<sub>0-10</sub>, C<sub>3-8</sub> heterocycloalkyl C<sub>0-10</sub> alkyl(carbonyl)C<sub>0-10</sub>, C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkylaminocarbonyl, arylC<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkylamino C<sub>0-10</sub> alkyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkyl aminocarbonylamino, C<sub>0-10</sub> alkyl aminocarbonylamino, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkyl aminocarbonylamino, C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, C<sub>3-8</sub> cycloalkyl C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, C<sub>3-8</sub> heterocyclyl C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, aryl C<sub>0-10</sub> alkyl aminocarbonyl C<sub>0-10</sub> alkyl, (C<sub>1-10</sub> alkyl)<sub>2</sub>aminocarbonyl, C<sub>1-10</sub> alkoxy (carbonyl)C<sub>0-10</sub> alkyl, C<sub>0-10</sub> alkyl carbonylamino(C<sub>0-10</sub> alkyl), C<sub>0-10</sub> alkoxy carbonylamino(C<sub>0-10</sub> alkyl), carboxy C<sub>0-10</sub> alkylamino, carboxy C<sub>0-10</sub> alkyl, carboxy C<sub>3-8</sub> cycloalkyl, C<sub>1-10</sub> alkoxy, hydroxy (carbonyl)C<sub>0-10</sub>alkyl, C<sub>0-10</sub>alkyl carbonylC<sub>0-10</sub>alkoxy, hydroxycarbonylC<sub>0-10</sub>alkoxy, hydroxycarbonylC<sub>0-10</sub>alkyloxy, cyano, nitro, perfluoroC<sub>1-6</sub>alkyl, and perfluoroC<sub>1-6</sub>alkoxy; wherein R<sup>5</sup> is optionally substituted with one or more groups chosen from: OH, (C<sub>1-6</sub>)alkoxy, halogen, CO<sub>2</sub>H, CN, O(C=O)C<sub>1-C6</sub> alkyl, NO<sub>2</sub>, trifluoromethoxy, trifluoroethoxy, -O<sub>b</sub>(C<sub>1-10</sub>)perfluoroalkyl, and NH<sub>2</sub>.

**Claim 15 (Original):** The compound of Claim 14, wherein R<sup>2</sup> is chosen from hydrogen and C<sub>1-4</sub> alkyl, optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1-4</sub> alkoxy, and C<sub>1-4</sub> alkylamino.

**Claim 16 (Original):** The compound of Claim 1, selected from:  
*N*-[3-(trifluoromethyl)pyridin-2-yl] -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-cyanopyrid-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-[6-(trifluoromethyl)pyridin-2-yl] -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-[3-cyano-pyridin-2-yl] -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(3-methyl-benzimidazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-nitro-benzimidazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(1,3-benzothiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(4-chloro-1,3-benzothiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-methyl-1,3-benzothiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-methoxy-1,3-benzothiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5,6-dimethyl-1,3-benzothiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;

*N*-(4-methyl-1,3-benzothiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-fluoropyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-cyclopropyl-1,3,4-thiadiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(2-methyl-3-bromo-pyrid-4-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N,N*-methyl(pyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-methylpyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-[5-(trifluoromethyl)pyridin-2-yl] -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-chloropyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(1,3-pyrimid-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(1,3-pyrazin-4-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(benzimidazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(2-methyl-pyrid-4-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(pyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(pyridin-3-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(pyridin-4-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-[(3-carboxamido)-pyridin-6-yl] -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-cyanopyridin-3-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-methylpyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-aminopyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-[(6-trifluoromethyl)-pyrid-3-yl] -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-ethylpyridin-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-fluoro-1,3-benzothiazol-2-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(2-ethylpyridin-4-yl) -4-methyl-6-methyl-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(2-ethylpyridin-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(2-methyl-pyrid-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(pyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(pyridin-3-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(pyridin-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-cyanopyridin-3-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-methylpyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-aminopyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-[(6-trifluoromethyl)-pyrid-3-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(2-chloro-pyrid-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-fluoro-pyrid-3-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(6-ethylpyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N*-(5-cyclopropyl-1,3,4-thiadiazol-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;

*N* -(2-methyl-3-bromo-pyrid-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* , *N* -methyl(pyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(5-methylpyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[5-(trifluoromethyl)pyridin-2-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(5-chloropyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(1,3-pyrimid-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(1,3-pyrazin-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(5-fluoropyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(benzimidazol-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[(5-carboxyl)-pyrid-2-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[(4-carboxyl)phenyl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[(4-carboxyl-3-chloro)phenyl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[2-chloro(4-methoxycarbonyl)phenyl]-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(1,3-pyrimid-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[5-(ethoxycarbonyl) -1,3-thiazol-2-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[4-(trifluoromethyl)-5-(ethoxycarbonyl) -1,3-thiazol-2-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[4-hydroxy-5-(ethoxycarbonyl) -1,3-pyrimid-2-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(6-methylpyridin-2-yl)-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[(4-carboxamido)phenyl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(2-methyl-pyrid-4-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(pyridin-3-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(4,6-dimethylpyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(benzimidazol-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(6-methylpyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(6-cyanopyridin-3-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(5-fluoropyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -(5-chloropyridin-2-yl) -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[5-(trifluoromethyl)pyridin-2-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[(5-carboxyl)-pyrid-2-yl] -4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
*N* -[(5-cyclopropyl-1,3,4-thiadiazol-2-yl) - 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N* -[4,6-dimethyl-pyridin-2-yl] 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N* -(benzimidazol-2-yl) - 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N* -[5-cyano-pyridin-2-yl] 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N* -(1,3-pyrimid-4-yl) - 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N* -[3-methyl-pyridin-2-yl] 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;

*N*-[(5-carboxamido)pyridin-2-yl] - 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N*-(isoquinolin-3-yl) - 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N*-[6-(trifluoromethyl)pyridin-2-yl] - 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N*-(4-azabenzimidazol-2-yl) - 6,6-ethylene-3-oxo-4-aza-5 $\alpha$ -androst-17 $\beta$ -acetamide;  
*N*-(1H-imidazo[4,5-b] pyridin-2-yl) - 4-methyl-6-chloro-3-oxo-4-aza-5 $\alpha$ -androst-5-en-17 $\beta$ -acetamide;  
and  
pharmaceutically acceptable salts and stereoisomers thereof.

**Claim 17 (Currently amended)**      The method of treating a condition in a mammal which is caused by androgen deficiency, which can be ameliorated by androgen replacement, or which can be increased by androgen replacement, which use of the compound of any one of Claims 1-16 or a pharmaceutically acceptable salt or stereoisomer thereof in the preparation of a medicament for the treatment or prevention of a condition selected from: weakened muscle tone, osteoporosis, osteopenia, glucocorticoid-induced osteoporosis, periodontal disease, bone fracture, bone damage following bone reconstructive surgery, sarcopenia, frailty, aging skin, male hypogonadism, postmenopausal symptoms in women, atherosclerosis, hypercholesterolemia, hyperlipidemia, obesity, aplastic anemia, hematopoietic disorders, arthritic condition and joint repair, HIV-wasting, prostate cancer, cancer cachexia, muscular dystrophies, Alzheimer's disease, cognitive decline, sexual dysfunction, sleep apnea, benign prostate hyperplasia, depression, premature ovarian failure, and autoimmune disease, ~~in a mammal in need thereof~~ comprising administering to the mammal in need of such treatment, a therapeutically effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt or a stereoisomer thereof.

**Claim 18 (Currently amended):**      The ~~use of Claim 17~~ method according to Claim 17, wherein said condition is osteoporosis.

**Claim 19 (Currently amended):**      A pharmaceutical composition comprising a a therapeutically effective amount of a compound of Claim 1 ~~compound of any one of Claims 1-16 or a salt or stereoisomer thereof~~ and a pharmaceutically acceptable carrier.

**Claim 20 (Original)**      A composition of Claim 19, further comprising an active ingredient selected from: an estrogen or an estrogen derivative, alone or in combination with a progestin or progestin derivative, a bisphosphonate, an antiestrogen or a selective estrogen receptor modulator, an  $\alpha\beta3$  integrin receptor antagonist, a cathepsin K inhibitor, an HMG-CoA reductase inhibitor, an osteoclast vacuolar ATPase inhibitor, an antagonist of VEGF binding to osteoclast receptors, an activator of peroxisome proliferator-activated receptor  $\gamma$ , calcitonin, a calcium receptor antagonist, parathyroid hormone or analog thereof, a growth hormone secretagogue, human growth



hormone, insulin-like growth factor, a p38 protein kinase inhibitor, bone morphogenetic protein, an inhibitor of BMP antagonism, a prostaglandin derivative, vitamin D or vitamin D derivative, vitamin K or vitamin K derivative, ipriflavone, fluoride salts, dietary calcium supplements, and osteoprotegerin.

**Claim 21 (Original)** A composition of Claim 21, wherein said bisphosphonate is alendronate.

**Claim 22 (Presently amended):** A process for making a pharmaceutical composition comprising combining a compound according to Claim 1 ~~any one of Claims 1 to 16 or salt or stereoisomer thereof~~ and a pharmaceutically acceptable carrier.

**Claim 23 (Original)** A method of Claim 17, wherein the arthritic condition is selected from rheumatoid arthritis and osteoarthritis.

**Claim 24 (New)** A method according to Claim 17, wherein said condition is chosen from weakened muscle tone, cancer cachexia, sarcopenia, muscular dystrophies, and frailty.

**Claim 25 (New)** A method according to Claim 17, wherein said condition is chosen from male hypogonadism, prostate cancer, and benign prostate hyperplasia.

**Claim 26 (New)** A method of treating osteoporosis in a mammal in need thereof, comprising administering a therapeutically effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt or a stereoisomer thereof.

**Claim 27 (New)** A method of Claim 26, further comprising the administration of an agent selected from:

- 1) an estrogen or an estrogen derivative, alone or in combination with a progestin or progestin derivative,
- 2) a bisphosphonate,
- 3) an antiestrogen or a selective estrogen receptor modulator,
- 4) an  $\alpha v\beta 3$  integrin receptor antagonist,
- 5) a cathepsin K inhibitor,
- 6) an HMG-CoA reductase inhibitor,
- 7) an osteoclast vacuolar ATPase inhibitor,

- 8) an antagonist of VEGF binding to osteoclast receptors,
- 9) an activator of peroxisome proliferator-activated receptor  $\gamma$ ,
- 10) calcitonin,
- 11) a calcium receptor antagonist,
- 12) parathyroid hormone or analog thereof,
- 13) a growth hormone secretagogue,
- 14) human growth hormone,
- 15) insulin-like growth factor,
- 16) a p38 protein kinase inhibitor,
- 17) bone morphogenetic protein,
- 18) an inhibitor of BMP antagonism,
- 19) a prostaglandin derivative,
- 20) vitamin D or vitamin D derivative,
- 21) vitamin K or vitamin K derivative,
- 22) ipriflavone,
- 23) fluoride salts,
- 24) dietary calcium supplement, and
- 25) osteoprotegerin.

**Claim 28 (New):** The method according to Claim 27, wherein:

- 1) the estrogen or estrogen derivative, alone or in combination with a progestin or progestin derivative, is selected from conjugated estrogen, equine estrogen,  $17\beta$ -estradiol, estrone,  $17\beta$ -ethynyl estradiol,  $17\beta$ -ethynyl estradiol with at least one agent selected from norethindrone and medroxyprogesterone acetate;
- 2) the bisphosphonate is selected from alendronate, clodronate, etidronate, ibandronate, incadronate, minodronate, neridronate, olpadronate, pamidronate, piridronate, risedronate, tiludronate, and zoledronate;
- 3) the antiestrogen or selective estrogen receptor modulator is selected from raloxifene, clomiphene, zuclophene, enclomiphene, nafoxidene, CI-680, CI-628, CN-55,945-27, Mer-25, U-11,555A, U-100A, tamoxifen, lasofoxifene, toremifene, azorxifene, EM-800, EM-652, TSE 424, droloxifene, idoxifene, and levormeloxifene;
- 4) the HMG-CoA reductase inhibitor is selected from lovastatin, simvastatin, dihydroxy-open acid simvastatin, pravastatin, fluvastatin, atorvastatin, cerivastatin, rosuvastatin, pitavastatin, and nisvastatin;
- 5) calcitonin is salmon calcitonin administered as a nasal spray;

- 6) bone morphogenetic protein is selected from BMP 2, BMP 3, BMP 5, BMP 6, BMP 7, TGF beta, and GDF5;
- 7) insulin-like growth factor is selected from IGF I and IGF II alone or in combination with IGF binding protein 3;
- 8) the prostaglandin derivative is selected from agonists of prostaglandin receptors EP<sub>1</sub>, EP<sub>2</sub>, EP<sub>4</sub>, FP, and IP;
- 9) the fibroblast growth factor is selected from aFGF and bFGF;
- 10) parathyroid hormone (PTH) or PTH analog is selected from PTH subcutaneous injection, human PTH (1-84), human PTH (1-34), and other partial sequences, native or with substitutions;
- 11) vitamin D or vitamin D derivative is selected from natural vitamin D, 25-OH-vitamin D<sub>3</sub>, 1 $\alpha$ ,25(OH)<sub>2</sub> vitamin D<sub>3</sub>, 1 $\alpha$ -OH-vitamin D<sub>3</sub>, 1 $\alpha$ -OH-vitamin D<sub>2</sub>, dihydrotachysterol, 26,27-F6-1 $\alpha$ ,25(OH)<sub>2</sub> vitamin D<sub>3</sub>, 19-nor-1 $\alpha$ ,25(OH)<sub>2</sub>vitamin D<sub>3</sub>, 22-oxacalcitriol, calcipotriol, 1 $\alpha$ ,25(OH)<sub>2</sub>-16-ene-23-yne-vitamin D<sub>3</sub>(Ro 23-7553), EB1089, 20-epi-1 $\alpha$ ,25(OH)<sub>2</sub> vitamin D<sub>3</sub>, KH1060, ED71, 1 $\alpha$ ,24(S)-(OH)<sub>2</sub> vitamin D<sub>3</sub>, and 1 $\alpha$ ,24(R)-(OH)<sub>2</sub> vitamin D<sub>3</sub>;
- 12) the dietary calcium supplement is selected from calcium carbonate, calciumcitrate, and natural calcium salts; and
- 13) the fluoride salts are chosen from sodium fluoride and monosodium fluorophosphate (MFP); and pharmaceutically acceptable salts or stereoisomers thereof.

**Claim 29 (New):** The method according to Claim 28, wherein the bisphosphonate is alendronate monosodium trihydrate or alendronate monosodium monohydrate.

**Claim 30 (New):** The method of Claim 23, wherein said agent is selected from:

an estrogen or an estrogen derivative, alone or in combination with a progestin or progestin derivative, a bisphosphonate, an antiestrogen or a selective estrogen receptor modulator, an  $\alpha$ v $\beta$ 3 integrin receptor antagonist, a cathepsin K inhibitor, an osteoclast vacuolar ATPase inhibitor, calcitonin, osteoprotegrin, and parathyroid hormone or analog thereof.

**Claim 31 (New):** A method of inhibiting bone resorption in a mammal in need thereof, comprising administering a therapeutically effective amount of a compound according to Claim 1 or a pharmaceutically acceptable salt or a stereoisomer thereof.